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THE PLANT DISEASE REPORTER

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THE PLANT DISEASE REPORTER

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THE PLANT DISEASE SURVEY

DIVISION OF MYCOLOGY AND DISEASE SURVEY

Volume XXIII Number 16

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NOTES ON THE OCCURRENCE OF COLEOSPORIUM IN THE SOUTHEASTERN UNITED STATES DURING 1938 AND 1939

George G. Hedgcock,
Collaborator, Division of Forest Pathology,
Bureau of Plant Industry.

This paper gives data on the occurrence and time of fruiting for the stages of the species of Coleosporium found in Florida and other Southeastern States during several trips to the region made in 1938 and 1939. Credit is due to Professors Erdman West and George F. Weber of Gainesville, Florida, and Dr. Arthur S. Rhoades of Cocoa, Florida, all of the Florida Agricultural Experiment Stations, who gave valuable assistance in collecting specimens in their localities. For convenience, the data are tabulated.

Pycnia of species of Coleosporium appear in December in Florida and adjacent States. In Florida they are mature in January to February, preceding the aecia by at least a month. The aecia of Coleosporium vernoniae and C. apocynaceum are earliest to appear, being followed in a week or two by those of C. minutum and in 2 or 3 weeks by those of C. elephantopodis and C. helianthae, while those of C. ipomoeae and C. laciniariae are about a month later. Northward the appearance of both pycnia and aecia is retarded by cooler weather, and along the northern border in eastern United States is at least 2 months later than in Florida.

Coleosporium heterothecae and C. viguierae rarely produce telia in Florida, and C. solidaginis produces none except possibly a few along the northern border. C. solidaginis winters over in Florida in the uredial stage. At higher altitudes and in cooler climates in the adjacent States north of Florida, its telia are often found in abundance.

Data on the occurrence of *Coleosporium* in 1938 and 1939.

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. apocynaceum Cooke:					
Amsonia ciliata Walt.	II	June 26, 1938	Swan Lake, Fla.	West	On leaves; new locality
A. rigida Shuttler	II	June 21, 1939	Hart Springs, Fla.	"	On leaves; new host and locality
Pinus taeda L.	0	Jan. 13, 1939	" " "	Hedgcock	On needles; new locality
C. delicatulum Hedgc. & Long:					
Euthamia leptocephala (T.&G.) Greene	II	Jan. 20, 1939	Gulfport, Fla.	"	Wintering over on leaves
	II	Feb. 16, 1939	Pasadena, Fla.	"	" " "
Pinus palustris Mill.	I	Feb. 19, 1938	Brooksville, Fla.	"	On needles
	I	Feb. 20, 1938	" "	"	" "
	I	Feb. 21, 1938	" "	"	" "
	I	Mar. 4, 1938	Gainesville, Fla.	"	" "
	I	Mar. 9, 1938	Yulee, Fla.	"	" "
	I	Jan. 10, 1939	Brooksville, Fla.	"	" "
	I	Mar. 1, 1939	" "	"	" "
Pinus taeda	I	Mar. 15, 1939	Denmark, S. C.	"	" "
C. elephantopodis Hedgc. & Long:					
Elephantopus carolinianus Willd.	II	June 17, 1938	Walterboro, S. C.	Hedgcock	On leaves from I on *Pinus taeda*
	II	June 18, 1938	Sumter, S. C.	"	" " " "
E. nudatus A. Gray	II	Dec. 15, 1938	Dunedin, Fla.	"	Overwintering on leaves

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. elephantopodis - cont'd.					
E. tomentosus L.	II	Apr. 19, 1938	Gainesville, Fla.	Weber	On leaves from I on Pinus taeda
	II	June 17, 1938	Walterboro, S. C.	Hedgcock	" " " "
Pinus caribaea More.	I	Feb. 8, 1938	Dunedin, Fla.	"	On needles; near Elephantopus
	I	Feb. 24, 1938	New Smyrna, Fla.	"	" " "
	I	Mar. 11, 1938	Brunswick, Ga.	"	" " "
	I	Feb. 21, 1939	Vera Beach, Fla.	"	" " "
	I	Feb. 22, 1939	Cocoa, Fla.	Hedgcock & Rhoades	" " "
	I	Feb. 28, 1939	Dunedin, Fla.	Hedgcock	" " "
	I	Mar. 1, 1939	Brooksville, Fla.	"	" " "
	I	Mar. 3, 1939	Silver Springs, Fla.	"	" " "
	I	Apr. 23, 1939	Gainesville, Fla.	Weber	On needles
Pinus palustris	0	Jan. 10, 1939	Brooksville, Fla.	Hedgcock	On needles; near Elephantopus
	0	Jan. 11, 1939	Gainesville, Fla.	"	" " "
	I	Feb. 17, 1938	Dade City, Fla.	"	" " "
	I	Feb. 19, 1938	Brooksville, Fla.	"	" " "
	I	Feb. 20, 1938	" "	"	" " "
	I	Feb. 22, 1938	Leesburg, Fla.	"	" " "
	I	Mar. 5, 1938	Gainesville, Fla.	"	" " "
	I	" " "	Waldo, Fla.	"	" " "
	I	Mar. 7, 1938	Silver Spring, Fla.	"	" " "
	I	Mar. 9, 1938	Yulee, Fla.	"	" " "
	I	Mar. 10, 1938	Everett City, Ga.	"	" " "
	I	Mar. 11, 1938	Brunswick, Ga.	"	" " "
	I	Mar. 12, 1938	Jesup, Ga.	"	" " "

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. elephantopodis - cont'd.					
Pinus palustris	I	Mar. 15, 1938	Denmark, S. C.	Hedgcock	On needles; near Elephantopus
	I	Mar. 17, 1938	Pelion, S. C.	"	" " "
	I	Apr. 21, 1938	Gainesville, Fla.	Weber	On needles
	I	June 14, 1938	Waycross, Ga.	Hedgcock	On needles; near Elephantopus
	I	June 15, 1938	Ft. Bragg, N. C.	A. A. Rich	On needles
	I	Jan. 10, 1939	Brooksville, Fla.	Hedgcock	On needles; near Elephantopus
	I	Jan. 11, 1939	Brooksville, Fla.	"	" " "
	I	Jan. 12, 1939	Gainesville, Fla.	"	" " "
	I	Jan. 14, 1939	Ocala, Fla.	"	" " "
	I	Feb. 28, 1939	Dunedin, Fla.	"	" " "
	I	Mar. 1, 1939	Brooksville, Fla.	"	" " "
	I	Mar. 2, 1939	" "	"	" " "
	I	Mar. 3, 1939	Silver Springs, Fla.	"	" " "
	I	" " "	Ocala, Fla.	"	" " "
Pinus serotina Michx.	I	Mar. 9, 1938	Yulee, Fla.	"	" " "
Pinus taeda	I	Feb. 21, 1938	Brooksville, Fla.	"	" " "
	I	Mar. 9, 1938	Yulee, Fla.	"	" " "
	I	Mar. 11, 1938	Brunswick, Ga.	"	" " "
	I	Mar. 15, 1938	Denmark, S. C.	"	" " "
	I	Mar. 2, 1939	Brooksville, Fla.	"	" " "
	I	Mar. 4, 1939	Gainesville, Fla.	"	" " "

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. helianthae (Schw.) Arth.:					
Helianthus decapetalus L.	II,III	June 28, 1938	Red Land, N. C.	Hedgcock	On leaves from I on Pinus virginiana
H. divaricatus L.	II,III	" " "	Red Land, N. C.	"	" " " "
	II,III	June 29, 1938	Winston Salem, N.C.	"	" " " "
C. heterothecae Hedgc. & Hunt					O and I unknown
Heterotheca subaxillaris (Lam.) Britt.	II	Feb. 22, 1938	Leesburg, Fla.	"	Wintering over on leaves
	II	June 13, 1938	Valdosta, Ga.	"	" " "
	II	June 15, 1938	Jesup, Ga.	"	" " "
	II	June 18, 1938	Sumter, S. C.	"	" " "
	II	Feb. 20, 1939	Lake Worth, Fla.	"	" " "
	II	Mar. 4, 1939	Gainesville, Fla.	"	" " "
C. inconspicuum Hedgc. & Long:					
Coreopsis major Walt.	II,III	June 26, 1938	Mt. Airy, N. C.	"	On leaves from I on Pinus virginiana
	II,III	June 27, 1938	Pilot Knob, N. C.	"	" " " "
	II,III	June 29, 1938	Winston Salem, N.C.	"	" " " "
C. ipomoeae (Schw.) Burr.:	II,III				
Ipomoea pandurata	II,III	June 25, 1935	Mt. Airy, N. C.	"	On leaves from I on Pinus echinata
	II,III	June 29, 1935	Pilot Knob, N. C.	"	" " " "

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. ipomoeae - cont'd.					
Pinus caribaea	I	Feb. 22, 1939	Cocoa, Fla.	Hedgcock & Rhoades	On needles near *Ipomoea* sp.
Pinus palustris	0	Jan. 10, 1939	Brooksville, Fla.	Hedgcock	On needles
	0	Jan. 11, 1939	Gainesville, Fla.	"	" "
	I	Feb. 20, 1938	Brooksville, Fla.	"	On needles; immature aecia
	I	Mar. 5, 1938	Gainesville, Fla.	"	" " "
	I	Mar. 6, 1938	" "	"	" " "
	I	Mar. 11, 1938	Brunswick, Ga.	"	" " "
	I	Jan. 14, 1939	Ocala, Fla.	"	" " "
	I	Mar. 1, 1939	Brooksville, Fla.	"	On needles; near *Ipomoea pandurata*
	I	Mar. 2, 1939	" "	"	" " "
	I	Mar. 3, 1939	Ocala, Fla.	"	" " "
C. laciniariae Arth.:					
Laciniaria scariosa (L.) Hill	II	June 9, 1938	" "	"	On leaves from I on *Pinus palustris*
Pinus palustris	0	Jan. 14, 1939	" "	"	On needles near *Laciniaria scariosa*
	I	Mar. 3, 1938	Gainesville, Fla.	"	" " "
	I	Mar. 5, 1938	Waldo, Fla.	"	On needles
	I	Mar. 8, 1938	Ocala, Fla.	"	On needles near *Laciniaria*
	I	Mar. 3, 1939	" "	"	" " "

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. minutum Hedgc. & Hunt:					
Adelia ligustrina Michx.	II	May 5, 1939	Gainesville, Fla.	West	On leaves from I on Pinus glabra
Pinus glabra Walt	0	Jan. 13, 1939	" "	Hedgcock	On needles near Adelia ligustrina
	I	Mar. 3 & 6, 1938	" "	"	" " "
Pinus taeda	0	Jan. 13, 1939	Hart Springs, Fla.	Hedgcock & West	On needles, new locality
	I	Mar. 2, 1939	Brooksville, Fla.	Hedgcock	On needles near Adelia
C. laciniariae Arth.					
Pinus palustris	0	Jan. 14, 1939	Ocala, Fla.	"	On needles near Laciniaria
	I	Mar. 3, 1938	Gainesville, Fla.	"	" " "
	I	Mar. 5, 1938	Waldo, Fla.	"	On needles
	I	Mar. 8, 1938	Ocala, Fla.	"	On needles near Laciniaria
	I	Mar. 3, 1939	" "	"	" " "
C. solidaginis (Schw.) Arth.					Aecia not found in Florida
Aster puniceus L.	II	June 21, 1938	Wrightsville, N.C.	"	?Overwinters on leaves
	II, III	June 23, 1938	New Bern, N.C.	"	On leaves, no pines near

Rusts and hosts	Stage	Date	Locality	Collector	Remarks
C. solidaginis - cont'd.					
Solidago boottii Hook	II	June 27, 1938	Pilot Knob, N. C.	Hedgcock	On leaves from I on *Pinus echinata*
S. canadensis L.	II	" " "	" " " "	"	" " " "
	II, III	June 29, 1938	Winston Salem, N. C.	"	" " " "
S. chapmannii A. Gray	II, III	Feb. 12, 1938	Venice, Fla.	"	Overwintering on leaves
	II, III	Dec. 15, 1938	Dunedin, Fla.	"	" "
S. fistulosa Mill.	II	Feb. 19, 1938	Brooksville, Fla.	"	" "
	II	June 20, 1938	Conway, S. C.	"	" "
	II	Dec. 15, 1938	Dunedin, Fla.	"	" "
	II	Jan. 20, 1939	Gulfport, Fla.	"	" "
	II	Feb. 29, 1939	Oak Hill, Fla.	"	" "
S. nemoralis Ait.	II	June 26, 1938	Mt. Airy, N. C.	"	On leaves from I on *P. echinata*
S. rugosa Mill.	II	June 18, 1938	Sumter, S. C.	"	?Overwintering on leaves
S. rupestris Raf.	II	June 23, 1938	New Bern, N. C.	"	?Overwintering on leaves
S. sempervirens L.	II	Feb. 24, 1938	New Smyrna, Fla.	"	Overwintering on leaves
	II	Dec. 26, 1938	Pass-a-Grille Beach, Fla.	"	" "
S. serotina Ait.	II	Feb. 20, 1938	Brooksville, Fla.	"	" "
	II	Mar. 15, 1938	Denmark, S. C.	"	" "
	II	June 17, 1938	Walterboro, S. C.	"	" "
	II	June 18, 1938	Sumter, S. C.	"	" "

Rusts and hosts	Stage	Date	Location	Collector	Remarks
C. vernoniae D. & H.:					
Vernonia ovalifolia T. & G.	II	Apr. 17, 1938	Gainesville, Fla.	Weber	On leaves from I on Pinus taeda
Pinus caribaea	I	Feb. 16, 1938	Miami, Fla.	Hedgcock	On needles
	I	Feb. 24, 1938	New Smyrna, Fla.	"	On needles near Vernonia ovalifolia
	I	Mar. 4, 1938	Gainesville, Fla.	"	" " " "
	I	Mar. 10, 1938	Everett City, Ga.	"	On needles
	I	Feb. 22, 1939	Cocoa, Fla.	"	" "
	I	Feb. 23, 1939	LaGrange, Fla.	"	" "
Pinus palustris	I	Feb. 28, 1939	Silver Springs, Fla.	"	On needles near Vernonia ovalifolia
	I	Mar. 1, 1938	Ocala, Fla.	"	" " " "
	I	Mar. 3, 1938	Gainesville, Fla.	"	" " " "
	I	Mar. 4, 1938	" "	"	" " " "
	I	Mar. 8, 1938	Ocala, Fla.	"	On needles
	I	Mar. 10, 1938	Everett City, Fla.	"	" "
Pinus taeda	I	Feb. 28, 1938	Silver Springs, Fla.	"	" "
	I	Mar. 3, 1938	Gainesville, Fla.	"	On needles near Vernonia ovalifolia
	I	Mar. 4, 1938	" "	"	" " " "
	I	Mar. 10, 1938	Everett City, Ga.	"	" " " "
	I	Mar. 16, 1938	Denmark, S. C.	"	" " " "
	I	May 3, 1938	Muscle Shoals, Ala.	Crandall	On needles
	I	Jan. 11, 1939	Gainesville, Fla.	Hedgcock	On needles; aecia immature
	I	Jan. 12, 1939	" "	"	" " "

Rusts and hosts	Stage	Date	Location	Collector	Remarks
C. viguierae D. & H.:					Aecia unknown
Verbesina laciniata (Poir) Small:	II	Apr. 3, 1939	Cocoa Beach, Fla.	Rhoades	Overwintering on leaves
Peridermium floridanum Hedgc. & Hunt:					II and III probably on Laciniaria scariosa
Pinus palustris	0	Jan. 14, 1939	Ocala, Fla.	Hedgcock	On needles near Laciniaria
	I	Mar. 6, 1938	Gainesville, Fla.	"	" " "
	I	Mar. 8, 1938	Ocala, Fla.	"	" " "
	I	Mar. 3, 1939	" "	"	" " "

SASSAFRAS YELLOWS

P. A. Young

Many sassafras trees, Sassafras variifolium (Sal.) Ktze., at the Tomato Disease Laboratory at Jacksonville, Texas, showed severe symptoms resembling those of a virus disease, in August 1939. In contrast to the typical large dark green leaves of the normal trees, those of abnormal trees showed prominent yellowing between the main veins, partial to complete upward rolling, and brittleness. Most of the badly affected trees also exhibited prominent fasciation of tops and dwarfing of leaves in addition to the yellows and leaf-roll symptoms. In extreme cases, the leaves also showed necrotic spots. A much larger percentage of the leaves were 2- and 3-lobed on normal than on yellowed trees. These symptoms appeared on sassafras sprouts 2 to 6 feet tall, growing rapidly in a well-fertilized sandy field that had been planted in tomatoes last spring. The sprouts were from sassafras roots that had been growing there for the last 5 or more years.

This seems to be a new disease for which the name sassafras yellows is suggested, based on the symptoms which, as already stated, resemble those of a virus disease.[1/]

(Texas Agricultural Experiment Station, Tomato Disease Laboratory, Jacksonville).

OCCURRENCE OF ASHY STEM BLIGHT ON BEAN REPORTED FROM ARKANSAS

Seth Barton Locke

What is believed to be the first incidence of ashy-stem blight of beans in Arkansas was observed on a planting of Kentucky Wonder pole beans at the University Farm, Fayetteville.

The disease was first noticed about the middle of July when the plants suddenly began to wilt and die. Closer examination revealed large cankers at the soil line which entirely girdled the stems. The stems above and below the cankers, as well as the root system, appeared to be sound. No fruiting bodies were observed on the cankers at this time. However, isolations made from the margins of the cankers yielded in every case a fungus which produced numerous minute, black sclerotia.

1/ [NOTE: In 1923 Charles Chupp reported a disease of sassafras under the name "mosaic, cause unknown", from New York, with the notation that 10 percent of the trees in a grove in Nassau County were affected, according to H. H. Whetzel. No description was given.]

Several weeks later material from the same planting was found to have numerous pycnidia on the surface of the cankers. These yielded large, oval, single-celled spores, indicating that the fungus causing the trouble was Macrophomina phaseoli (Maubl.) Ashby (= Rhizoctonia bataticola (Taub.) Butler).

The writer has received no report indicating that the disease is present in any other planting in the State. However, since Rhizoctonia bataticola is reported to be widespread on a number of hosts commonly grown in this section, it might be expected that the fungus has been present for some time and the absence of ashy-stem blight on commercial plantings of beans is due to some other circumstance. The planting at the University Farm was made several weeks later than that of the commercial snap-bean canning crop. The weather was unusually wet and warm up until the first of July, after which it became very dry and hot. Since the disease seems to be favored by abundant moisture and high temperature, this may account for the appearance of the disease in this planting, whereas the commercial plantings may have escaped because of their earliness.

The planting in question was made on soil which had been planted to cowpeas the previous season, and to cotton for several seasons before that. Both of these crops are reported to be susceptible to attacks by Rhizoctonia bataticola. No information is available as to the presence or absence of the disease on these plantings.

(Arkansas Agricultural Experiment Station, August 26).

REPORT ON WATERMELON DISEASES IN FLORIDA IN 1939

M. N. Walker

The 1939 watermelon season was a disastrous one throughout the State, and growers sustained losses ranging from 20 percent to 100 percent, with a State average close to 50 percent. The loss generally was successively worse as the season progressed from central to northern Florida. The month of May was characterized by unusually cool nights with abundant moisture at night, though little rain fell in the Leesburg area until melons were practically ready for harvest. Farther north rains occurred shortly after setting of fruit and became extremely heavy during June.

Infection by anthracnose (Colletotrichum lagenarium) and downy mildew (Peronoplasmopara [Pseudoperonospora] cubensis) appeared early in the season. It was rather general by the time heavy rains came, and the later spread was especially severe, resulting in 100 percent defoliation

in many fields before harvest. Losses were largely incident to defoliation before the melons were ripe and the disfigurement of melons by anthracnose. Defoliation resulted in a very general lowering of quality and in the harvesting of immature melons. Since both diseases were present in practically every field, definite figures as to the chief cause of defoliation were difficult to obtain. However, to judge from the amount of anthracnose appearing on the vines and melons, it appeared that in three-fourths of the fields observed downy mildew was responsible for 75 percent of the defoliation. In other fields this proportion was reversed. Losses, however, attributable to anthracnose were greater because of melon infection, which caused many melons to be discarded in the fields or at loading stations. Growers attributed all of the injuries to anthracnose.

The epiphytotic of downy mildew this year was the worst observed in Florida during the past ten years. In 1934 some fields showed as heavy infection but they were for the most part scattered.

The prevalence of downy mildew and anthracnose this year is due apparently to especially favorable weather for infection and to the failure of commercial growers to use any preventive measures. Some growers began spraying after considerable infection had appeared. Large spraying outfits, used generally for citrus and delivering 600 pounds pressure, were used in some fields. One man in particular put out 4000 gallons of spray per day through 8 leads for a period of 5 days. Either because of favorable weather immediately following this spray or because of the effectiveness of the spray itself there appeared to be some benefit derived from its use. Copper oxychloride was the material used in the Leesburg area. This material was used because of its satisfactory use on cucumbers in the early spring. Because of the extremely heavy injury by both diseases this year there has been a general revival of interest in the possibility of control by the use of sprays and it is possible that another year will find control measures practiced by a number of the larger growers, particularly in the Leesburg area.

Wilt (Fusarium niveum), which usually occurs in about the same abundance each year, was no worse than usual this year, and in fact fewer fields showing heavy injury were observed. On the other hand, Cercospora [citrullina] appeared unusually early this year and it seemed that the lesions on the leaves were larger than usually is the case. This disease ordinarily appears after melons are harvested, but this year considerable infection was noticed before melons ripened. Alternaria [cucumerina], which is generally present with anthracnose, was also general this year, but since it accompanies diseases of greater virulence little damage probably resulted from its presence. Injury from gummy stem blight (Mycosphaerella citrullina) was small although the disease was general on the vines in most fields. The chief injury that appears definitely attributable to this disease is the killing of young plants, and this was not noted this year.

(Florida Agricultural Experiment Station).

POTATO DISEASES IN NEW YORK

(Reports from Weekly News Letter for dates indicated)

Bacterial Ring Rot in Up-State New York: On August 12 bacterial ring rot [Bacterium sepedonicum] was seen for the first time in up-State New York in the southwest corner of Ontario County in a field of Chippewas grown from Maine seed. (K. H. Fernow, August 28).

Late Blight Potentially Threatens: It is quite apparent from observations sent us that late blight [Phytophthora infestans] of potatoes occurs not uncommonly in western and central New York. It has not done material damage yet but a potential threat exists. (M. F. Barrus, August 28).

Late Blight and Purple Top in Erie County: Late blight is present and spreading in the Sardinia potato section. Twenty-five percent of one unsprayed field blighted in 4 or 5 days. Some little blight is showing in 2 fields sprayed 4 times to date. During the last 2 weeks, the purple top disease has been found on a number of different farms throughout Erie County. Most of these have been located in the southern part, although a few cases have been found in the northern part of the County. (C. F. Crowe, August 28).

Z Disease in Genesee County: Inspection by J. E. Dalrymple has shown Z disease present again on upland potatoes. (J. N. Roney, August 14).

BRIEF NOTES ON PLANT DISEASES

FROG-EYE AND WILDFIRE ON TOBACCO IN KENTUCKY: Frog-eye leaf spot (Cercospora nicotianae) of Burley tobacco has been very prevalent in 1938 and 1939 but previous to that time was comparatively rare as a cause of extensive spotting. Spotting is frequently found half-way or more up the plant and green spots occur on cured tobacco apparently from late infections.

In areas in western Kentucky and northern Tennessee wildfire (Bacterium tabacum) is causing sufficient damage so that many growers are cutting dark tobacco before it is ripe. Fields set from Bordeaux treated beds are not injured and are nearly free from wildfire, although an occasional spot can be found. Heavy fertilization and manuring with high topping is giving nearly complete freedom from spotting on ripening tobacco with good quality. (W. D. Valleau, August 23. Kentucky Agricultural Experiment Station).

FRUIT DISEASES REPORTED FROM KENTUCKY: Bitter rot (Glomerella cingulata) is severe on apples (King David and Golden Delicious) near Princeton. The season in that area has been excessively dry all summer. Bitter rot has been reported as severe in other parts of the State also.

Quince rust [Gymnosporangium clavipes] infections, usually on the calyx ends of apples, have caused heavy dropping of fruit in western Kentucky. In some instances nearly all fruits have fallen from trees carrying a moderate crop, because of rust.

Two trees of July Elberta in the Station orchard at Lexington bore many bumpy peaches (virus) this year. The disease was originally discovered on June Elberta. The July Elberta trees were from Stark's Nursery. Leaf symptoms, if they occur, are obscure. The disease could easily be carried year after year in a nursery unknown to the nurseryman. (W. D. Valleau, August 23. Kentucky Agricultural Experiment Station).

FOOT ROTS OF WHEAT IN KANSAS: The take-all foot rot [Ophiobolus graminis] of wheat in Kansas this year was much less than the writer has ever seen. Nearly all the test plots were a failure from the experemental viewpoint owing to lack of disease. This condition is attributed to the low moisture of April and May, during which months the disease usually gains a foothold. The only locality in which much take-all occurred was in the vicinity of Wichita. The records show that more rain occurred in this region during April and May than elsewhere in the State.

This year was ideal for the dry-land foot rot [Helminthosporium]. Wheat in nearly the entire region from Manhattan westward was infested. The same was true for eastern Colorado. As usual it was found that early seeding favored the disease. Dry-land foot rot caused an indirect loss this year. The heads of the diseased plants were slow to emerge from the boot. These boots served as a harboring place for aphids, which damaged the enclosed heads. (Hurley Fellows, July 29. Cereal Courier 31: 104, August 10).

WHEAT DISEASES OBSERVED IN TRAVELLING THROUGH THE WESTERN REGION: Diseases were conspicuously absent. Very few fields seen in Oregon, Washington, and northern Idaho had sufficient smut [Tilletia] to be a grading factor. The near elimination of smut in this area is certainly noteworthy. Even in southern Idaho and Utah, considerably less smut than last season is suggested by my observations.

Dwarf smut [T. tritici] was much less prevalent than usual, particularly at High Prairie, northern Idaho, and Gallatin Valley.

Stem rust [Puccinia graminis], widespread and severe over much of the region last year, was not even seen outside California this year. Leaf rust [P. rubigo-vera tritici] was seen at a few scattered locations and promised to become abundant at Sandpoint, Idaho. Strip rust [P. glumarum] was also seen at several locations, but in no case was there much of it. (C. A. Suneson, July 19. Cereal Courier 31: 96, July 25).

BACTERIAL DISEASE OF POPPIES IN OREGON: A field of poppies used for the production of poppy seed for bakery purposes growing near Scio, Oregon, has been injured by a bacterial disease which seems to be caused by Bacterium papavericola. The organism has not been cultured but its appearance and the appearance of the affected plants correspond with the original description (Jour. Agr. Res. 40: 1-9. 1930) as given by Bryan and McWhorter. This is the first time I have seen this disease on poppies in the Northwest. (Frank P. McWhorter, August 30. Oregon Agricultural Experiment Station and U. S. Bureau of Plant Industry).